Draft Individual Review Form

Proposal number: 2001-D200-1 **Short Proposal Title: Cosumnes Floodplain Acquisition**

1a) Are the objectives and hypotheses clearly stated?
Yes. Objectives are listed in bullet form in both the Executive Summary and in the Project Description. The Project Description section also contains a subsection explicitly stating and describing the working hypothesis which follows, and is based on, the subsection discussing the Conceptual Model.

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?
A qualified yes. The proposal describes the importance of floodplain inundation for attenuation of flood peaks and recharge of groundwater table, provision of aquatic habitat for threatened fish species, and riparian vegetation and associated bird and wildlife habitat The applicant explains the general form of their conceptual model, but does not distinguish several key processes. First, they state that "the river's hydrologic regime is the principal process that shapes and sustains floodplain and riparian habitat", but this conceptual model fails to include the importance of the river's sediment regime, particularly as it relates to transport and deposition of fine sediment on floodplain surfaces, and the function of floodplains in relation to coarse sediment transport thresholds. Second, the model does not distinguish between expected benefits of alteration of levees verses removal of levees, which may have different consequences in the future function of the floodplain. Their claim that breaching levees will "restore" floodplains and natural ecologocal processes and functions is not substantiated by any cited literature.

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?
Not entirely. In terms of the overall project approach of (1) purchasing property and assessing current habitat and infrastructural conditions, (2) developing a conceptual-level restoration plan, then (3) proceeding with the proposed restoration, this is a logical and feasible approach to meeting project goals and objectives. As discussed above, however, breaching levees may not provide the expected benefits of floodplain restoration, and the proposal does not provide an evaluation of different alternatives or explanation of why other methods (i.e., levee removal) are not more, or less, suitable.

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project?
Yes. The project proposes purchase of title or easement of up to 600 acres of floodplain property, and tiers off the Cosumnes River Preserve and work being conducted by UC Davis research, and therefore warrants consideration as a full-scale project.

1c2) Is the project likely to generate information that can be used to inform future decision making?
Yes, but I think the project should include more explicit experimentation with different techniques of levee breaching, setback, or removal, and monitoring to determine the benefit from these actions to floodplain restoration and function. This type of experimentation may be intended to be included in Phase II, for which funds were not requested, or may be pursued by the UC Davis research.

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?
Yes, it appears that ongoing monitoring within the Cosumnes River Preserve would be extended to the newly acquired properties, and would continue to include such entities as the UC Davis researchers and Point Reyes Bird Observatory's existing research project.

2b) Are data collection, data management, data analysis, and reporting plans well-described, scientifically sound and adequate to meet the proposed objectives?

Data collection, management, and analysis is not a big part of this proposal, and was not elucidated in great detail. However, it appears that the scientific and management programs already exist within the Cosumnes River Preserve, and should be adequate for these purposes.

3) Is the proposed work likely to be technically feasible?
Yes. The proposal to use a block grant to make money available for land acquisition for properties whose sale has not yet been negotiated makes sense. Also, developing a conceptual plan for restoration before obtaining funding and proceeding with restoration is a good idea.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project?
Obviously YES. The Nature Conservancy's reputation certainly is well known, and their partnerships with UC Davis and local stakeholder groups appear strong and well-founded.

Miscellaneous comments
The TNC has done an excellent job of land acquisition and restoration in the past, and their work on the Cosumnes River should be supported. I assume they are able to evaluate other floodplain restoration activities in the Central Valley such as Clear Creek, eventually the Tuolumne River Gravel Mining Reach project, and the San Joaquin River Wildlife Refuge, incorporating lessons and strategies from those projects into their actions. Specifically, I recommend they evaluate the methods of levee breaching, levee setback, or complete removal.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
☑ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor	The large blocks of land that will be added to the Cosumnes River corridor appear to "fill in" essential missing pieces to create a contiguous floodway corridor. Establishing a natural flood plain and floodway ecosystem in the Central Valley should be a high priority for CALFED, and the Cosumnes River is an obvious candidate for this role.